**What is your breathing rate?**

**Purpose**:

In this lab activity you will find out how your breathing rates compares during rest and after exercise.

Note: If you suffer from any respiratory condition (like asthma) that makes exercise dangerous to your health please perform Procedure A only. You can still obtain results from your peers and complete the questions.

**Materials**:

Stopwatch

**Procedure A**

1. While seated and relaxed, count the number of breaths you take in one minute. One breath equals an inhalation followed by an exhalation. Record this number.
2. Repeat step 1 two more times. Calculate your average breaths per minute by adding the total breaths counted and divide by 3.

**Procedure B**

1. Run on the spot or skip for 5 minutes.
2. Sit down and immediately record your breathing rate (One breath equals an inhalation followed by an exhalation) for one minute.
3. Wait 3 minutes and record your breathing rate again. Continue to record your breathing rate every 3 minutes until it returns to the value you recorded in Procedure A.
4. Compare your results with other students in the class. Note if any students are smokers.

**Analysis Questions (marks are indicated)**

1. Why were you asked to repeat the activity three times in Procedure A? (1 mark)
2. How did your breathing rate after exercise compare to that while you were resting? Be specific, state the average values you recorded. (2 mark)
3. What happened to your breathing rate 3 minutes after exercising? (1 mark)
4. How long did it take for your breathing rate after exercise to return to its resting rate? Suggest reasons for this. (2 marks)
5. How did your results compare to those of other students? (2 marks)
6. If there are any smokers in the class, how did their breathing rates compare to the non-smokers? Suggest reasons for this.